

REMARKS

The claims remaining in the present application are Claims 2-8, 28, 31-37 and 39-54. Claims 3-4, 6, 10, and 31-35 have been amended. Claims 42-54 have been added. Claims 10, 12-13, 15-18, 26-27, 29-30 and 38 have been cancelled, without prejudice. No new matter has been added as a result of these amendments.

EXAMINER INTERVIEW SUMMARY

On November 19, 2004, Ronald Pomerence, representative for the Applicants, conducted a telephonic interview with Examiners Hanh Thai and Uyen Le. The Applicants thank the Examiners for granting this interview. Claim 3 was discussed with respect to Hoover et al., U.S. Patent No. 5,560,005. Proposed claim amendments were discussed.

Claim Rejections

35 U.S.C. §103

Claims 2-8, 10, 12-13, 15-18, and 26-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoover et al., U.S. Patent No. 5,560,005 (hereinafter, Hoover) in view of Challenger U.S. Patent No. 6,256,712 (hereinafter, Challenger), and in further view of Gerkin, III et al., U.S. Patent No. 6,601,072 (hereinafter, Gerkin). Claims 10, 12-13, 15-18, 26-27, 29-30 and 38 have been cancelled, without prejudice. Therefore, the rejection to these claims is rendered moot. The rejection to

Claims 2-8, 28, 31-37, and 39-41 is respectfully traversed, for the reasons below.

Currently Amended Independent Claim 3 recites, in part:

c) using said user identifier and said stored mapping, said repository retrieving information corresponding to a first of said plurality of fields from a first of said plurality of databases;

d) using said user identifier and said stored mapping, said repository retrieving information corresponding to a second of said plurality of fields from a second of said plurality of databases, wherein said first and second database store information in a different format from one another (emphasis added).

Hoover's Object-Based Approach Requires Homogenous Data Storage;

Therefore Hoover Cannot Be Modified To Arrive At The Claimed Invention

Hoover teaches a system which uses object oriented approach to homogenize data that may be stored in a heterogeneous format. Hoover first converts all of the data from customer databases 26 to a homogeneous format on remote databases 28. Then Hoover uses the ORB 20 to access the information on the remote databases that use a homogeneous format. Therefore, Hoover requires that the accessing point (ORB) access data from data stored in a homogeneous format. Thus, Hoover cannot be modified to arrive at the limitations of Claim 3.

Applicants understand the information in Hoover's remote databases (28) to be stored in a homogenous format. While Hoover may teach customer databases (26) that may allow for a heterogeneous data format, Hoover teaches that only the remote databases (28) that store data in a homogeneous format are accessed by the ORB. Moreover, Applicants respectfully assert that Hoover requires that the remote databases store their information in a homogeneous format.

The object broker is a central computing entity that is responsible for managing objects within the preferred embodiment of the present invention, and **imposing** (by virtue of its existence and limitations) a homogeneous data model upon the varying heterogeneous systems at remote user computer sites. (Hoover, col. 21, lines 45-50, emphasis added).

Hoover teaches that each client site must have its own customer specific API (32) in order to convert the heterogeneous data format of a customer database (26) to the system's homogeneous format of a remote database (28) (Hoover, col. 11, lines 30-46). Therefore, Applicants respectfully point out that the homogeneous remote databases from which the ORB accesses data as taught by Hoover may not be modified to arrive at the claimed invention. In other words, Hoover teaches away from the Applicants' claimed limitations of a repository *retrieving information* corresponding to respective first and second fields from first and second databases, wherein said first and second database store information in a different format from one another.

For the foregoing reasons, Applicants respectfully assert that Hoover fails to teach or suggest using the claimed stored mapping to retrieve information from the databases, wherein said first and second database store information in a different format from one another.

Applicants respectfully assert that Challenger fails to teach or suggest the claimed repository using the claimed stored mapping to retrieve information from the databases, wherein said first and second database store information in a different format from one another. Therefore, the combination of Hoover and Challenger fail to teach or suggest the limitations of Claim 3. Further, Applicants respectfully assert that Gerkin fails to teach or suggest the claimed repository using the claimed stored mapping to retrieve information from the databases, wherein said first and second database store information in a different format from one another. Therefore, the combination of Hoover, Challenger, and Gerkin fail to teach or suggest the limitations of Claim 3.

Moreover, as Applicants have previously argued, the homogeneous remote databases from which the ORB accesses data as taught by Hoover may not be modified to arrive at the claimed invention. This is because to do so would render Hoover inoperable. Therefore, Applicants respectfully assert that even if prior art other than Hoover were interpreted as teaching a

"repository retrieving information corresponding to respective first and second fields from first and second databases, wherein said first and second database store information in a different format from one another," such a teaching could not be combined with Hoover's teaching of the ORB retrieving information from remote databases having a homogeneous format.

Prior art fails to teach or suggest a mapping that is stored on a repository and that maps fields of a requested logical collection of information to databases

Currently Amended Independent Claim 3 further recites:

b1) determining a plurality of fields associated with said requested logical collection of information, wherein said fields describe information distributed over a plurality of databases; and

b2) accessing a stored mapping of said fields to said databases, said mapping stored on said repository.

In contrast, Hoover has a mapping of object identifiers to databases. For example, Figure 7 of Hoover depicts a map table. Applicants note that the map table does not map fields associated with said requested logical collection of information to databases, as claimed. Applicants respectfully assert that Hoover teaches that the map table (120) comprises a mapping from an object identifier to table names (Hoover, Fig. 7). Hoover's map table may also indicate a database that stores the aforementioned tables (Fig. 6, 140). However, Hoover does not teach or suggest the claimed stored

mapping of fields associated with said requested set of information to databases.

This claimed embodiment maps fields to databases. For example, Figure 3 illustrates an embodiment of a mapping of the fields associated with a set of information to the physical locations in databases. Each set of information comprises a number of fields. However, the data may be organized in a different way on databases than it is organized in the sets of information. Embodiments of the present invention keep track of the physical location of each field. Applicants respectfully assert that Hoover's ORB does not provide a mapping to the databases at the field level. Rather, the ORB only knows where each Hoovers object attribute tables are stored. Thus, Hoover is unable to provide the finer granularity of the embodiment of Claim 38, in which a first field is mapped to a first database and a second field is mapped to a second database in a stored mapping.

Applicants assert that Hoovers' organizational structure forces all of the fields associated with a given object attribute table to be stored on each database to achieve the homogeneous structure on Hoover's remote databases. Therefore, Hoover teaches away from the Applicants' claimed limitations of a first field is mapped to a first database and a second field is mapped to a second database in a stored mapping. For example, embodiments of the present invention allow for data to be stored

heterogeneously on various databases. The stored mapping keeps track of where the various fields associated with a given set of information are located even if this means that fields from a given set of information are spread over several databases.

Applicants respectfully assert that Challenger fails to teach or suggest the claimed repository using the claimed stored mapping that maps fields of a requested logical collection of information to databases to retrieve information from the databases. Therefore, the combination of Hoover and Challenger fail to teach or suggest the limitations of Claim 3. Further, Applicants respectfully assert that Gerkin fails to teach or suggest the claimed repository using the claimed stored mapping that maps fields of a requested logical collection of information to databases to retrieve information from the databases. Therefore, the combination of Hoover, Challenger, and Gerkin fail to teach or suggest the limitations of Claim 3.

Moreover, as Applicants have previously argued, the homogeneous remote databases from which the ORB accesses data as taught by Hoover may not be modified to arrive at the claimed inventions of "a first field is mapped to a first database and a second field is mapped to a second database in a stored mapping". Therefore, Applicants respectfully assert that even if prior art other than Hoover were interpreted as teaching "a first field is mapped to a first database and a second field is mapped to a second database

in a stored mapping," such a teaching could not be combined with Hoover's teaching of the ORB retrieving information from remote databases having a homogeneous format.

For the foregoing reasons, Hoover, Challenger, and Gerkin, alone or in combination, fail to teach or suggest the limitations of Claim 3.

Consequently, Applicants respectfully request allowance of Claim 3.

Independent Claim 31 contains similar limitations to the limitations discussed in the response to Claim 3. Therefore, the reasoning discussed in the response to Claim 3, is applicable to these claims. As such, allowance of Independent Claim 31 is earnestly requested.

Claims 2, 4-8, 28, and 32-37, and 39-41 depend from Claims 3 and 31, which are believed to be allowable for the foregoing rationale. As such, these Claims are believed to be allowable.

Claim 6

Claim 6 is respectfully believed to be allowable for the following additional reasons.

Claim 6 recites in part:

said update is based upon monitoring activity of a user of said application program, said activity being related to said requested logical collection of information, wherein said first of said plurality of

fields in said logical collection of said information is updated implicitly.

Claim 6 recites that one of the fields is updated by writing to a database, based upon monitoring the activity of a user of the application. This allows implicit updating of the information. It is respectfully asserted that the combination of Hoover, Challenger, and Gerkin fail to teach or suggest the limitations of Claim 6. As such, allowance of Claim 6 is respectfully submitted.

The rejection cites Hoover at col. 3, lines 14-24, col. 39, lines 54-64, and col. 53, lines 23-27 with respect to the limitations of Claim 6. Applicants respectfully submit that Hoover fails to teach or suggest the limitations of Claim 6 in these passages or elsewhere. Applicants respectfully assert that Hoover's monitoring of the status of data is not monitoring activity of a user, as claimed. Hoover discloses that the status of data is monitored so that users have access to the most current information available on the network (Hoover col. 3, lines 14-24). Further, Hoover's monitoring of the status of data is not used to implicitly update information, as claimed.

Further, Applicants respectfully submit that Hoover's monitoring program (Hoover col. 39, lines 45 - col. 4, line 24) does not write to the databases. Therefore, Hoover's monitoring program does not teach or suggest implicit updating of information, as claimed. In contrast, Hoover's

monitoring program is for processing requests (Hoover, col. 39, lines 48-53).

Still further, Applicants do not understand the passage of Hoover at col. 53, lines 23-27 to teach or suggest monitoring user activity, as claimed. Nor does this passage teach or suggest implicit updating of information, as claimed. Rather, this passage in Hoover concerns issuing a 'get' message to retrieve demographic data about a patient. For example, Figure 28 illustrates that information about patient John Doe is searched for, retrieved, and displayed. However, John Doe is not a user of the application program. Therefore, getting information about John Doe does not teach or suggest the limitation of Claim 6.

Applicants respectfully assert that Challenger and Gerkin fail to rectify these deficiencies in Hoover. Therefore, the combination of Hoover, Challenger, and Gerkin fail to teach or suggest the limitations of Claim 6. As such, allowance of Claim 6 is respectfully submitted.

New Claims

Claims 42-54 have been added. Support for Claim 42 and 53 may be found in the specification at least at page 14, line 7 - page 17, line 23. Support for Claims 43-44 and 46 may be found in the specification at least at page 16, line 9-11. Support for Claims 45 and 54 may be found in the

specification at least at page 21, lines 20-23. Support for Claims 47-48 may be found in the specification at least at page 14, line 13. Support for Claims 49-50 may be found in the specification at least at page 17, lines 14-23. Support for Claims 52-53 may be found in the specification at least at page 28, lines 6-15.

Claim 42 recites in part:

a datasource manager having a stored mapping of the data fields to said databases, wherein the datasource manager is operable to access the requested logical collection of information by forming database requests to at least two of the databases having different data formats.

Claim 53 comprises similar limitations. The arguments set forth in the response to Claim 3 apply with equal force to New Independent Claims 42 and 53. Therefore, Claims 42 and 53 are respectfully believed to be allowable.

Claims 43-52 and 54 are respectfully believed to be allowable at by virtue of their respective dependencies from Claims 42 and 53.

Claim 51

New Claim 51 is respectfully believed to be allowable for the following addition reasons.

Claim 51 recites, in part:

wherein said object request broker is accessed via a published user record read/update application program interface (API) that is used

by said application to read and update user records on the plurality of databases.

Hoover fails to teach or suggest an API useable through the ORB that allows reading and updating records on the plurality of databases. Applicants respectfully assert that Hoover teaches updating the data at the local client sites via the client's API. Applicants note that Hoover teaches an ORB that has an API supporting "SEARCH, ADD, GET, UPDATE." Hoover's UPDATE message is not used to actually update the record, but rather for the client nodes to report that a record was updated. Thus, Hoover fails to teach or suggest the claimed, API useable through the ORB that allows updating records on the plurality of databases.

Applicants respectfully assert that Challenger and Gerkin fail to rectify these deficiencies in Hoover. Therefore, the combination of Hoover, Challenger, and Gerkin fail to teach or suggest the limitations of Claim 38. For example, Challenger may disclose numerous API's; However, Applicants do not understand Challenger to teach or suggest one API useable via an ORB and another not usable via the ORB, in the manner claimed in Claim 51.

For the forgoing reasons, Claim 51 is believed to be allowable over the prior art. Applicants earnestly request allowance of Claim 51.

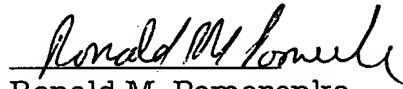
CONCLUSION

In light of the above listed amendments and remarks, reconsideration of the rejected Claims is requested. Based on the arguments and amendments presented above, it is respectfully submitted that Claims 2-8, 28, 31-37 and 39-54 overcome the rejections of record. Therefore, allowance of Claims 2-8, 28, 31-37 and 39-54 is respectfully solicited.

Should the Examiner have a question regarding the instant amendment and response, the Applicants invite the Examiner to contact the Applicants' undersigned representative at the below listed telephone number.

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Respectfully submitted,
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